

CLAIMS

1. A sliding screen door, wherein a screen configured to be free for expansion and contraction in a style of an
5 accordion by means of alternately folding in a reverse direction at numbers of folded portions being in parallel with each other is constructed to be free for opening and closing in a style of horizontal pulling in a frame body, and wherein one end of the screen is fixed to a vertical
10 frame member of the frame body and the other end of the screen is attached to an operating doorframe for open and close operation sliding along the frame body,

wherein a wire whose one end is fixed to the vertical frame member is horizontally inserted into the screen and
15 drooped in the operating doorframe via a guide member provided in the operating doorframe, and a sinker is dangled at a tip end of the wire in the operating doorframe, and

wherein a spring member being in a slightly compressed condition when the screen is in a stretched condition is
20 interposed between the sinker and a contacting portion to be a rising uppermost limit thereof, and

wherein a wire adjusting mechanism for adjusting stretching force of the wire when the screen is in the stretched condition by means of adjusting force of repulsion
25 of the spring member when the screen is in the stretched

condition by means of adjusting a length of the wire is installed in the vertical frame member.

2. The sliding screen door according to Claim 1, wherein the wire adjusting mechanism comprises a guide part attached to the vertical frame member, and an adjusting member
5 capable of sliding along a longitudinal direction of the vertical frame member and being attached to the vertical frame member at a slid position, and

wherein the wire adjusting mechanism is constructed to
10 adjust the length of the wire by means of adjusting an attaching position of the adjusting member to the vertical frame member by sliding the adjusting member in a condition wherein the wire folded back after passing through the guide part is united and fixed to the adjusting member, or in a
15 condition wherein the wire is further folded back at the adjusting member and returned again to the guide part and united and fixed to the guide part.

3. The sliding screen door according to Claim 2, wherein the vertical frame member comprises a sliding groove in a
20 longitudinal direction for slidably housing the adjusting member,

wherein the guide part is an approximately plate-shaped member being fixed to the sliding groove, comprising a guide hole formed by penetrating the guide part for the wire to be
25 inserted through, and a wire connecting portion for guiding

and/or uniting and fixing the wire, and

wherein the adjusting member is an approximately plate-shaped member comprising a wire connecting portion for guiding the wire and/or for uniting and fixing the wire, and
5 a screw hole where a fixing screw for detachably fixing the adjusting member to the sliding groove is screwed.

4. The sliding screen door according to Claim 3, wherein the sliding groove in the vertical frame member has approximately C-shaped section, comprising projecting walls
10 being inwardly protruding at a pair of groove side walls of the sliding groove, and

wherein the adjusting member is detachably fixed to the sliding groove by means of sandwiching the projecting walls between the adjusting member and a nut where a fixing screw
15 is screwed through the screw hole of the adjusting member.

5. The sliding screen door according to Claim 2, wherein the screen comprises a long plate-shaped side frame side end plate, and the side frame side end plate is detachably fixed in a manner so as to cover the guide part and the guide
20 member in the sliding groove formed at least in the vertical frame member.

6. The sliding screen door according to Claims 1 through 5, wherein a latching mechanism is installed in the vertical frame member where the screen is not fixed, and wherein the
25 latching mechanism locks the operating doorframe at a

closing position by means of being automatically latched with a receiving hole formed in the operating doorframe when the operating doorframe is moved to the closing position, and the latched state is released by means of raising
5 operation for an operating member while resisting force of gravity.

7. The sliding screen door according to Claim 6, wherein the latching mechanism comprises a sliding piece being slidable in an above and below direction within a definite
10 range in the vertical frame member; a latch main body connected to the sliding piece; and a position adjusting device for adjusting a lowering position of the latch main body by its own weight.

8. The sliding screen door according to Claim 8, wherein
15 the vertical frame member wherein the latching mechanism is installed comprises a pair of side walls extending in a longitudinal direction having a notched portion at a position wherein the latching mechanism is installed, and a connecting wall connecting the pair of the side walls and
20 comprising a sliding groove extending in a longitudinal direction, and

wherein the sliding piece comprises a hooking portion being slidably inserted into the sliding groove and latched with a receiving hole formed in the operating doorframe, and
25 wherein the latch main body comprises an operating

member outwardly protruding from the notched portion of the side walls.